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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/053,514	10/25/2001	Rebecca Ann Frana-Guthrie	0212-0001	1677

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BEEM PATENT LAW FIRM  
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CHICAGO, IL 60604-3787

EXAMINER

CIRIC, LJILJANA V

ART UNIT	PAPER NUMBER
3743	

DATE MAILED: 05/27/2003

b

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No. 10/053,514	Applicant(s) Frana-Guthrie et al.
Examiner Ljiljana V. Ciric <i>JVC</i>	Art Unit 3743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status:

1)  Responsive to communication(s) filed on Oct 25, 2001

2a)  This action is FINAL.      2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

4)  Claim(s) 1-8 is/are pending in the application.

4a) Of the above, claim(s) none is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 1-8 is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are a)  accepted or b)  objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)  The proposed drawing correction filed on \_\_\_\_\_ is: a)  approved b)  disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.

12)  The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

13)  Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)  All b)  Some\* c)  None of:

- Certified copies of the priority documents have been received.
- Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
- Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

14)  Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a)  The translation of the foreign language provisional application has been received.

15)  Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

1)  Notice of References Cited (PTO-892)      4)  Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_

2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)      5)  Notice of Informal Patent Application (PTO-152)

3)  Information Disclosure Statement(s) (PTO-1449) Paper No(s). 3, 5      6)  Other: \_\_\_\_\_

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## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to because four reference signs, including reference signs 70, 72, 74, and 76, all appear to be pointing towards a single element in Figure 4. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference signs mentioned in the description: reference sign 42 corresponding to the sealing flange as cited on page 4, line 18 and on page 7, line 23; reference sign 50 corresponding to the downstream face of the radiator as cited on page 5, line 3; reference sign 60 corresponding to the downstream face of the charge air cooler as cited on page 5, line 11; and reference signs 104 and 106 corresponding to the gaps cited on page 7, line 18. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Specification***

3. The abstract of the disclosure is objected to because of the following informalities: “a” is missing immediately preceding each of “radiator” [line 4], “charge air cooler” [line 5], and “subassembly” [line 8, first occurrence]; and, “the” is missing immediately preceding each of

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“radiator” [line 7], “charge air cooler” [lines 7-8], “subassembly” [line 8, second occurrence], “frame” [line 8], and “flange” [line 8]. Correction is required. See MPEP § 608.01(b).

4. The disclosure is objected to because of the following informalities: “The subassembly having a face with a perimeter” [page 3, lines 3-4] is an incomplete sentence.

Appropriate correction is required.

5. The attempt to incorporate subject matter into this application by reference to a co-pending application [page 9, lines 5-8] is improper because this application is identified only via an attorney docket number. Absent additional information, the attorney docket number is not sufficient for ready identification of (and access to) this co-pending application.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. More specifically, the limitation “wherein *the connecting* of the one side of the radiator and the one side of the charge air cooler *is releasable*” is not clear as written. In particular, it is not clear which step or steps are encompassed by “releasable connecting”.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by *Ghiani et al.*

*Ghiani et al.* discloses a vehicular cooling subassembly essentially as claimed, including an air-to-water cooler or radiator 1 and an air-to-air cooler or compressed charge air cooler 2, wherein one side of the radiator 1 is connected to one side of the charge air cooler 2 as shown in Figure 1. The connected sides of the radiator 1 and of the charge air cooler 2 have extended "lips" or projections 5" and 15', respectively, which "bolt" or fasten the connected sides.

The reference thus reads on the claims.

10. Alternately for claim 1, claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by *Williams (of record)*.

*Williams* discloses a vehicular cooling package essentially as claimed, including: a shroud 86 which is broadly readable on the frame, the shroud or "frame" 86 including walls defining an opening and a "flange" attached thereto as shown in Figure 3; a radiator 44 and a charge air cooler 60, wherein one side of the radiator 44 is connected to one side of the charge air cooler 60 to form a subassembly, the subassembly including the radiator 44 and the charge air cooler 60 being mounted in the opening of the "frame" or shroud 86 so that the perimeter of the face of the subassembly seals against the "flange" of the "frame" or shroud 86 as shown in Figure 3.

The reference thus reads on the claims.

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11. Alternately for claims 1 through 3, claims 1 through 4, 6, and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by *Hedeen*.

*Hedeen* discloses a vehicular cooling package and method of assembling the same essentially as claimed, including: providing a frame 52 having walls defining an opening therebetween and also having a flange attached to the inner surface of the frame walls, the flange extending inwardly into the opening formed by the frame 52 as shown in Figure 2 as broadly interpreted as required; a radiator 40 and a charge air cooler 38, wherein one side of the radiator 40 is connected to one side of the charge air cooler 38 in order to form a subassembly or integrated heat exchanger 34, the subassembly or integrated heat exchanger 34 being mounted in the opening of the frame 52 so that at least a portion of the perimeter of the face of the subassembly or integrated heat exchanger 34 seals against the flange of the frame 52 as shown in Figure 2; and, the connected sides of the radiator 40 and the charge air cooler 38 having extended lips bolted together via connectors 76 which may be nuts and bolts as shown in Figure 3.

The reference thus reads on the claims.

12. Alternately, claims 1 through 4 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by *Lakerdas et al.*

*Lakerdas et al.* discloses a vehicular cooling package essentially as claimed, including: a heat exchanger module 18 which is readable on the cooling package subassembly, the heat exchanger module comprising a radiator 19 coupled/connected/bolted to a charge air cooler and/or a condenser 21 [column 2, lines 15-20] via suitable known joining means or fasteners

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[column 3, lines 3-8]; and, a three-dimensional cooling fan module panel structure 30 which is readable on the frame having both walls defining an opening and a flange corresponding to the outer perimeter of the panel structure 30, the flange extending inwardly into the opening defined by the walls of the panel structure or frame 30.

The reference thus reads on the claims.

***Claim Rejections - 35 USC § 103***

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 5, 7, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Lakerdas et al.*.

As noted in greater detail above, *Lakerdas et al.* discloses a vehicular cooling package essentially as claimed, including a radiator 19 coupled/connected/bolted to a charge air cooler and/or a condenser 21 [column 2, lines 15-20] via suitable known joining means or fasteners [column 3, lines 3-8].

While *Lakerdas et al.* does not specify the fasteners to be nuts and bolts as recited in claim 7, Official Notice is hereby taken that nuts and bolts are known fasteners in the art of assembling vehicular cooling packages and subassemblies. Also, while *Lakerdas et al.* does not specify foam

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as being attached or otherwise provided between the perimeter of the cooling subassembly and the flange of the frame, Official Notice is hereby also taken that foam is a known sealant in the art.

Thus, it would have been obvious to one skilled in the art at the time of invention to modify the vehicular cooling package of *Lakerdas et al.* by joining the various elements of the cooling package using nuts and bolts in order to allow the elements to be readily connectable upon assembly and to be equally readily disconnectable as needed for maintenance purposes. It would have been similarly obvious to one skilled in the art at the time of invention to modify the vehicular cooling package of *Lakerdas et al.* by providing a sealant such as foam or foam strips between the various elements of the cooling package in order to prevent leakage, thus improving the efficiency of the cooling package.

### *Conclusion*

15. The following additional prior art made of record and not relied upon is considered pertinent to applicant's disclosure. *Kalbacher, Fischer et al., Rudert, Hoch, Rhodes et al., Klaucke et al., Bolton et al., Christensen (both references), Olson, Tepas et al., Knurr, Brost et al., Skeel et al., Schüle et al., Hateley, Dicke, Zobel et al., Kalbacher, and Klockner-Humboldt-Deutz AG* each discloses a vehicular cooling package including specific mounting arrangements between two heat exchangers therein. *Joseph et al.* discloses a vehicular heat exchanger seal apparatus comprising a flexible material.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ljiljana (Lil) V. Cric, whose telephone number is (703) 308-3925. While

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she works a flexible schedule that varies from day to day and from week to week, Examiner Cirić may generally be reached at the Office during the work week between the hours of 10 a.m. and 6 p.m. ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Bennett, can be reached on (703) 308-0101. The fax phone number is (703) 305-3463.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.

lvc

May 19, 2003



LJILJANA V. CIRIC  
PRIMARY EXAMINER  
ART UNIT 3743